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A985
JACC March 17, 2015
Volume 65, Issue 10S

Heart Failure and Cardiomyopathies

RISK STRATIFICATION AND OUTCOMES OF PATIENTS WITH HYPERTROPHIC CARDIOMYOPATHY

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Imaging and Biomarkers in Heart Failure
Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1217-208

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Background: We sought to assess outcomes and risk stratification tools in a large population of patients with hypertrophic cardiomyopathy.

Methods: 178 consecutive patients (71 female, age 48 ± 16 yrs; 109 with outflow tract obstruction) with hypertrophic cardiomyopathy were included and followed. Outcome was assessed and overall and event-free survival was determined.

Results: Overall event-free survival with events defined as implantation of an implantable cardioverter defibrillator (ICD), sudden death or unexplained syncope, new onset atrial fibrillation, septal myectomy or alcohol ablation were 90±2% , 82±3% and 69±4% after 1,2 and 4 years respectively with significantly higher event rates for patients with outflow tract obstruction (84±3%, 75±4% and 57±5% after 1,2 and 4 years respectively; $p < 0.001$). ICDs were implanted in 26 patients, 3 (12%) of which were sudden cardiac death (SCD) survivors. In pts that received an ICD, 2 or more risk factors for SCD were present in 42.3% and the recently introduced HCM Risk-SCD score was ≥ 6% in 69.2%. In 6 (23%) patients adequate therapy was delivered by the device (ATP in 4 patients, shock in 2 patients). 2 or more risk factors for SCD were found in 38.5% of patients with arrythmogenic events (sudden death survivor or adequate ICD therapy) and 15.2% of patients without arrythmogenic events ($p = 0.05$). The HCM Risk-SCD score was significantly higher in patients with arrythmogenic events (11.4% vs 5.2%; $p < 0.001$). However, a HCM Risk-SCD score ≥ 6% was found in 29.1% of patients without arrythmogenic events and a score < 6% in 46.1% of patients with arrythmogenic events ($p = 0.07$).

Conclusion: Patients with hypertrophic cardiomyopathy have high event rates, especially when outflow tract obstruction is present. While the presence of two or more risk factors and a high HCM Risk-SCD score identify patients at risk for arrhythmogenic events, their sensitivity and specificity in clinical practice is suboptimal.